

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Patent Application No. 09/972,902

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An optical fiber cable, comprising:

an optical fiber ribbon stack comprising a plurality of optical fibers held together in a planar array; and

~~at least one~~ a plurality of cushion member members disposed on an outer side surface of the optical fiber ribbon stack; and

a buffer tube surrounding the cushion ~~member~~ members and the optical fiber ribbon stack, wherein the cushion ~~member is~~ members are disposed parallel to a central longitudinal axis of the optical fiber ribbon stack to prevent corner fibers of the optical fiber ribbon stack from contacting the buffer tube.

2. Canceled

3. Canceled.

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4. (Currently Amended) The optical fiber cable as claimed in claim 3 1, wherein the cushion members are disposed over corner edges of the ribbon stack.

5. (Currently Amended) The optical fiber cable as claimed in claim 3 1, wherein the cushion members are centered on the outer side surfaces of the ribbon stack.

6. (Currently Amended) The optical fiber cable as claimed in claim 1, wherein the cushion ~~member has~~ members have an elasticity stiffness which varies across the thickness of the cushion members.

7. (Original) The optical fiber cable as claimed in claim 1, wherein the cushion members are disposed along edges of the optical fiber ribbon stack.

8. (Currently Amended) The optical fiber cable as claimed in claim 1, wherein the optical fibers of the optical fiber ribbon stack are held together by a matrix material, and an outer surface of the cushion ~~member has~~ members have a contact hardness and a Young's modulus which are approximately the same as a contact hard hardness and a Young's modulus of the matrix material.

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9. (Currently Amended) The optical fiber cable as claimed in claim 1, wherein each ~~the~~ cushion member has a graded contact hardness or Young's modulus which changes from a side of the cushion member which contacts the optical fiber ribbon stack to a side of the cushion member which faces away from the optical fiber ribbon stack.

10. (Currently Amended) The optical fiber cable as claimed in claim 2 1, wherein ~~the~~ each cushion member has a graded Young's modulus or contact hardness which changes from the Young's modulus or contact hardness of the optical fiber ribbon stack towards the Young's modulus and contact hardness of the buffer tube.

11. (Currently Amended) The optical fiber cable as claimed in claim 2 1, wherein a contact hardness of ~~the~~ each cushion member on a side of the cushion member which contacts the optical fiber ribbon stack is a softer than a contact hardness of the cushion member on a side of the cushion member which faces the buffer tube.

12. (Currently Amended) The optical fiber cable as claimed in claim 1, wherein the cushion member ~~is~~ members are centered on the side surfaces of the optical fiber ribbon stack.

13. (Currently Amended) The optical fiber cable as claimed in claim 1, wherein the cushion member ~~is~~ members are twisted together with the optical fiber ribbon stack.

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14. (Currently Amended) The optical fiber cable as claimed in claim 1, wherein a cross-sectional shape of the each cushion member is a hollow tube, a rectangle, a trapezoid, or a circle.

15. (Currently Amended) An optical fiber cable, comprising:

an optical fiber ribbon stack comprising a plurality of optical fibers held together in a planar array;

~~at least one cushion member~~ a plurality of cushion members disposed on an outer side surface of the optical fiber ribbon stack;

an elastic membrane surrounding the optical fiber stack and the cushion ~~member~~ members;

a buffer tube surrounding the elastic member; and

a filler material provided between the optical fiber ribbon stack and the elastic membrane and between the buffer tube and the optical fiber ribbon stack.

16. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the cushion ~~member~~ members and the elastic membrane prevent corner fibers of the optical fiber ribbon stack from contacting the buffer tube.

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17. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the elastic membrane imposes radial compression on the cushion ~~member~~ members, and the optical fiber ribbon stack so that the cushion ~~member is~~ members are slightly compressed against the optical fiber ribbon stack.

18. (Original) The optical fiber cable as claimed in claim 17, wherein the elastic membrane is formed of a flexible elastomer material.

19. (Original) The optical fiber cable as claimed in claim 15, wherein filler material comprises a gel or foam containing a plurality of gaseous bubbles.

20. (Original) The optical fiber cable as claimed in claim 15, wherein the filler material comprises be a gel with suspended particles.

21. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the each cushion member has an elasticity stiffness which varies across the thickness of the cushion member.

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22. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the cushion ~~member is~~ members are disposed over edges of the optical fiber ribbon stack.

23. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein an outer surface of ~~the each~~ cushion member has a contact hardness and a Young's modulus which are approximately the same as the contact hard hardness and Young's modulus of a matrix material which holds the optical fibers of the optical fiber ribbon stack together in the planar array.

24. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the cushion ~~member has~~ members have a graded contact hardness or Young's modulus which changes from sides of the cushion members which contact the ribbon stack towards sides of the cushion members which face away from the ribbon stack.

25. (Currently Amended) The optical fiber cable as claimed in claim 16, wherein the cushion ~~member has~~ members have a graded Young's modulus or contact hardness which changes from the Young's modulus or contact hardness of the ribbon stack towards the Young's modulus and contact hardness of the buffer tube.

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26. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the cushion ~~member is~~ members are centered on the side surfaces of the ribbon stack.

27. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein the cushion ~~member is~~ members are twisted together with the ribbon stack.

28. (Currently Amended) The optical fiber cable as claimed in claim 15, wherein a cross-sectional shape of ~~the~~ each cushion member is a hollow tube, a rectangle, a trapezoid, or a circle.

29. Canceled.

30. (Original) The optical fiber cable as claimed in claim 28, wherein the cushion members are disposed over corner edges of the ribbon stack.

31. (Original) The optical fiber cable as claimed in claim 28, wherein the cushion members are centered on the outer side surfaces of the ribbon stack.

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32. (Currently Amended) The optical fiber cable as claimed in claim 28, wherein a contact hardness of the each cushion member on a side of the cushion member which contacts the optical fiber ribbon stack is a softer than a contact hardness of the cushion member on a side of the cushion member which faces the buffer tube.